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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/770,792	12/19/96	KOYAMA J	07977/105001

MM61/1105

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EXAMINER	
NGO, H	
ART UNIT	**PAPER NUMBER**
2871	10

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Please find below and/or attached an Office communication concerning this application or pr ceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/770,792	Applicant(s) Koyama et al
	Examiner Julie-Huyen Ngo	Group Art Unit 2871

☐ Responsive to communication(s) filed on _____.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-20* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-20* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on *Dec 20, 1996* is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 7/7/97 Paper No. 5 has been considered.

Drawings

Figures 2-6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Applicant is required to submit a proposed drawing correction in response to this Office Action. Any proposal by the applicant for amendment of the drawings to cure defects must consist of two parts:

a) A *separate* letter to the Draftsman in accordance with MPEP § 608.02(r); and

b) A print or pen-and-ink sketch showing changes in *red ink* in accordance with MPEP § 608.02(v).

IMPORTANT NOTE: The filing of new formal drawings to correct the noted defect may be deferred until the application is allowed by the examiner, but the print or pen-and-ink sketch with proposed corrections shown in red ink is required in response to this Office Action, and *may not be deferred.*

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (figure 4 and page 2, lines 14-23 of the specification) in view of Hinata et al (5,610,742).

Applicant admits on page 2, lines 14-23, and shows in Figure 4, that a conventional liquid crystal display includes an active matrix with pixel TFTs and signal and scanning driving circuits, both formed of TFTs, on one substrate, all surrounded by a sealant material, a counter substrate, and a liquid crystal in between, covering the pixel TFTs and the drive circuit TFTS. Three edges of the substrates are cut together such that the cut edges are parallel and perpendicular to the rows or columns of the TFT array, the side edge of the TFT substrate and a cut side edge of the counter substrate being in alignment with each other. Thus, the only difference between claims 1, 2, 9, 10 and 17-20 and the admitted prior art is that the claims include a non-conductive material applied to the side edge of the TFT substrate and a side edge of the counter substrate.

Hinata et al teach, in the abstract and figures 1-5, sealing the edges of the substrates forming the liquid crystal display elements with epoxy adhesive or flexible gas barrier films 13 to decrease poor display performance caused by bubble formation. Therefore, it would have been obvious to apply flexible gas barrier films 13 to side edges of the substrates of the admitted prior art to decrease poor display performance in the admitted prior art. Accordingly, claims 1, 2, 9, 10 and 17- 20 would have been obvious over the admitted prior art in view of Hinata et al.

Claims 3 -8 and 11- 16 are rejected under 3 5 U. S. C. 103 (a) as being unpatentable over Applicant's admitted prior art, in view of Hinata et al, as applied

to claims 1, 2, 9, 10 and 17-20 above, and further in view of Spruijt et al (4,394,067).

Spruijt et al teach in column 1, lines 16-64, that by providing the control circuit as an integrated circuit on the electrode substrate, the number of electrical connections to the exterior is reduced. Further, placing the circuit in the rim of the sealing material between the two substrates provides a good mechanical and impervious protection of the circuit. However, since the size of the chip is larger than the thickness of the liquid crystal layer, to accommodate the circuit in the rim of the seal, one must recess a cavity in the supporting plates. Therefore, it would have been obvious to thin the substrates to accommodate a control circuit and to include the control circuit on the TFT substrate in the sealing material at the accommodation portion to reduce the number of electrical connections to the exterior, provide a good mechanical and impervious protection of the circuit, and provide sufficient space for the circuit. Therefore, claims 3-8 and 11 -16 would have been obvious over the admitted prior art in view of Hinata et al and Spruijt et al.

Response to Arguments

Applicant's arguments filed May 18, 1998 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies, i.e., applying a nonconductive material to a side edge of a TFT substrate and to a side edge of a counter substrate, are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Shirasawa shows in the figure that the coating is applied to overlap one of the substrate edges which meet the recitation of the claims.

In response to applicant's argument regarding protecting pixel TFTs from static charge, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Since the coating 9 in the device of Shirasawa overlaps one of the substrate edges, it could inherently protect the substrate as well.

Conclusion

Applicant's amendment to claims 1 and 9, and new claims 17- 20 constitute new issues necessitating the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Ngo whose telephone number is (703) 305-3508.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Papers related to this application may be submitted to Art Unit 2871 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Art Unit 2871 fax number are (703) 308-7722/7724.

JHLM
November 4, 1998

William L. Sikes
Supervisory Patent Examiner
Group 2871